

## COUNTING ROOM TECHNICIAN JOB PERFORMANCE MEASURE

**TASK CODE:** CRT-C06

**TASK:** Repair the Gamma Spectroscopy System

**NAME:** \_\_\_\_\_ **SSN:** \_\_\_\_\_

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**REFERENCES:**

1. Canberra Germanium Detectors User's Manual
2. Canberra Genie - ESP User's Manual
3. WP 12-RL1330, Gamma Spectral System Operation

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**TERMINAL OBJECTIVE:**

Given the gamma spectroscopy system will not calibrate or is not operating correctly, repair the gamma spectroscopy system.

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**CONSEQUENCES OF INADEQUATE PERFORMANCE:**

Improper analysis results  
Equipment damage

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**HAZARDS (PERSONNEL/EQUIPMENT STATUS):**

None

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**PRE-REQUISITE TRAINING/ TASK COMPLETION:**

1. CF 3.00 Series
2. CRT-C03, Calibrate the Gamma Spectroscopy System

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**TOOLS/EQUIPMENT (MATERIALS REQUIRED):**

1. Spare components
2. Spare cables and connectors
3. Service Contract
4. System Logbook

**Instructions to Trainee:** You shall acquire the necessary references and equipment, and complete all required documentation. Knowledge requirements shall be completed with 80% or greater accuracy. Critical step performance shall be completed with 100% accuracy.

**Instructions to JPM Evaluator:** The trainee is to perform the terminal objective, without assistance, on the job site. Provide clarification of requirements if requested by the trainee. You are encouraged to ask relevant questions to verify trainee understanding. If the trainee fails this JPM, clearly document the reason for failure and forward to the trainee's manager. Successful completion of this JPM shall be recorded on the trainee's qualification card.

**KNOWLEDGE REQUIREMENTS:**

Reference	Knowledge Requirement	Pass/Fail
2	State the reasons for troubleshooting a counting system.	
2	State the limitations and restrictions associated with the service contract.	
2	Discuss the indications of a problem with the counting system electronics.	
1	Discuss the indications of a problem with the counting system detector.	
2	Describe the effects of a bad cable or connector.	
2	Describe the possible indications of a problem with an electronic component.	
1	Describe the effect on a counting system if power is lost during operations.	
2	State what actions would invalidate a current counting system calibration.	
2	Describe the types of information that would be communicated to the service representative.	
3	Discuss how a counting system is known to be repaired.	
2	Discuss how to verify power is available to a counting system.	

**PERFORMANCE REQUIREMENTS:**

Reference	Performance Requirement	Pass/Fail
2	Verify power is available to the counting system.#	
2	Verify correct switch positions for the desired counting application.#	
3	Invalidate the current counting system calibration.#	

2	Perform a visual inspection of the cable and connectors.#	
Reference	Performance Requirement	Pass/Fail
2	Change out a cable and connectors.#	
2	Verify counting system components are configured correctly.#	
2	Perform a visual inspection of the internal counting system components.#	
2	Change out a counting system component.#	
1	Change out a counting detector.#	
1,2	Coordinate with the service representative troubleshooting activities.#	
3	Document all actions taken in the system logbook.#	

# indicates a critical step

**FINAL EVALUATION:**

PASS

FAIL

**COMMENTS:**

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**EVALUATOR SIGNATURE:**

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**DATE:**\_\_\_\_\_

**TRAINEE SIGNATURE:**

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**DATE:**\_\_\_\_\_

**MANAGER SIGNATURE:**

\_\_\_\_\_

**DATE:**\_\_\_\_\_